



Health Policy Challenge for Breast Cancer Prevention: A Case Report

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Abstract

Breast cancer early diagnosis increases treatment chances, and self-examination is one of the commonest screening methods employed by women. The case of a 24-year-old Iranian woman with a history of mild mental retardation and chest pain was reported. A large lump was detected in the breast during visitation to the surgical clinic. The parents stated the lump was noticed due to a shape change in the clothes covering the patient's chest area. Therefore, the patient had mastectomy surgery after a biopsy and a malignant breast lump was confirmed. The registration and identification of people with mental disorder histories or various mental retardation degrees in each region's health centers to periodically assess their breast health tend to reduce the risk of late breast cancer detection in women.

INTRODUCTION

In recent decades, some success has been achieved regarding the control and prevention of infectious diseases. Nonetheless, the incidence and prevalence of non-infectious diseases have increased significantly (Gutiérrez et al., 2019). Cancer is regarded to be the third main cause of death after cardiovascular diseases and accidents (Emily et al., 2021). Meanwhile, the prevalence of breast cancer accounts for about one-third of all women's cancers. Moreover, it is the second most common cancer after lung cancer and the most common cause of cancer mortality among women (Malvia et al., 2017). The most common cancer in Iranian women is the breast cancer

about 41,000 patients. Furthermore, more than 7,000 patients are added to this number each year (Soroush et al., 2016).

Early-onset of the disease greatly affects its recovery rate. There are several ways to diagnose breast cancer early. Being aware of the early symptoms of the disease, being familiar with breast self-examination, and undergoing mammography can reduce the mortality rate of about 23-30% in the case of the women who are over 50. Breast self-examination is a simple, effective, and inexpensive way to diagnose breast cancer early and can be performed by most of the women (Takkar et al., 2017). Based on the studies, 95% of advanced breast cancers and 65% of

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primary breast cancers are detected by women themselves. Consequently, taking fast action to screen the breasts is important regarding the early diagnosis and treatment of this disease. Studies have shown that breast self-examination reduces the risk of breast cancer by one-third in the cases in which the axillary lymph nodes are involved in the disease (Ahmed et al., 2018). Various studies in Iran have indicated that women visit doctors late before the diagnosis and treatment of cancer. This issue reduces their chances of survival. Based on the aforementioned studies, about 3.7% of women undergo (Monfared et al., 2017). In western countries, the mortality rate of this disease has been greatly reduced due to the use of these methods by the majority of women (Kalliguddi et al., 2019).

Biologically, the risk of various cancers is higher in people with mental disabilities. The term “mental disability” refers to the condition of the individuals who experience severe limitations regarding both cognitive functions and adaptive behaviors (i.e., conceptual, social, and practical adaptive skills) before the age of 18. It is clear that the term “mental disability” is synonymous with the term “mental retardation” (Mazon et al., 2019). The degree of these people’s disabilities depends on their skill level, intelligence level, and social support. The life expectancy of people with mental retardation has increased as a result of the advancements in medical care. Moreover, these individuals live in community-based environments instead of institutions. Adults with mental retardation prefer to be treated by doctors who treat their healthy peers (Bauer et al., 2019). Notwithstanding, there are limited guidelines on these people’s screening, especially regarding cardiovascular diseases and cancers (Mazon et al., 2019). The mentally retarded people are less likely to have children and breastfeed them in comparison with the other women. The lack of clear guidelines and the scarcity of breast cancer screening recommendations increase the risk of developing breast cancer at more advanced stages in the case of mentally retarded people (Nambi & Bhatt, 2017). In this study, we reported the case of a woman with mild degrees of retardation who visited the doctor after the extensive growth of a large cancerous tumor in her breast due to the undefined screening system.

CASE REPORT

The patient was a 24-year-old woman who visited the surgical clinic. During the examination, the doctor noticed the growth of a very large tumor in the patient’s right breast (Figure 1). The

patient’s family stated that, although their daughter suffered from mild mental retardation, she did not need the provision of personal care services by the others and did not mention the existence of a lump in her breast. Moreover, as they noted, they noticed the lump accidentally due to a change in the appearance of her chest area and the shape of her clothes which covered her chest. Finally, they explained that periodic examinations were not performed by the family or the health centers to detect the existence of a tumor in their daughter’s breast. The patient underwent a mastectomy after chemotherapy.

DISCUSSION

In the field of medicine, prevention includes all of the measures which are taken to: prevent the occurrence, cease, or slow down the course of the disease (Martins et al., 2018). According to this definition, prevention takes place at four levels including primordial prevention, primary prevention, secondary prevention, and tertiary prevention (Ali & Katz, 2015). It is logical to highlight the necessity of paying attention to all of the levels of prevention. Nonetheless, prevention at the first level precludes the occurrence of the disease. This issue relieves the patients’ physical and mental distress, reduces the waste of time, and prevents the costs of the disease. Moreover, it offers thousands of other benefits (Chomistek et al., 2015; McDaid et al., 2017). The first level of prevention mainly refers to the necessary identification and screening of patients from all walks of life, especially vulnerable groups such as children, pregnant mothers, and the elderly (Al-Rifai & Loney, 2017). Notwithstanding, certain groups in the society have not been mentioned in this level despite their numerous disabilities. Moreover, specific plans have not been developed to screen these groups of people and to provide them with comprehensive health education. The mentally disabled and mentally retarded individuals are among the aforementioned groups of people.

The reported case had not received the necessary breast self-examination education and did not have any information on the other diseases. Breast self-examination is one of the primary methods of preventing breast cancer. The individual herself is responsible for it and uses it to detect breast cancer (Ahmed et al., 2018). Women examine their breasts for lesions and bulges (Hazarika et al., 2017). Despite the growth of the lump in her breast, the patient had not realized that it was pathological and had not informed her family about it due to some reasons such as



Figure 1. Photograph of a patient with the breast cancer in the right breast and a history of mental retardation

mental retardation. The patient's parents noticed the tumor when it was very large and could be detected beneath the patient's clothes. These patients may refrain from informing their families of their breast lump owing to some reasons which can be examined in various social fields, the psychology of the mentally disabled people field, and cultural fields. They might include reasons such as fear of family, embarrassment, stress, fear of being excluded from the other individuals, and lack of awareness among others (Biabani et al., 2019; Dekker et al., 2015; Hernández-Saca et al., 2018). However, the lack of provision of specific screening education for mentally disabled patients and their families is the most important reason among the aforementioned reasons. Regarding the reported case, the patient and her family had not received any relevant education and the patient underwent the treatment when the lump had grown to almost 20 centimeters.

It should be mentioned that the reported case is only an instance of the lack of attention to these patients' breast cancer screening. We appreciated the significance of this issue when we searched reputable databases such as PubMed, Embase, Google Scholar, DOAJ, Medline, Web of Science, Psych Info, and CINAHL and rea-

lized that specific screening plans had not been fully developed for these patients. Nonetheless, effective steps have been taken regarding the first, the second, and the third prevention levels (Dalton-Locke et al., 2020). Patients with mental retardation, mental disability, and Down syndrome have significantly lower intelligence levels (70 and less than 70) in comparison with the average intelligence level (100-84) of the other people in the society (Spiridigliozzi et al., 2017). It is necessary to develop programs for these patients or their families based on the conditions of the disease, the degree of the patients' disability, and the families' abilities. We propose a plan to periodically screen these patients by identifying patients with mental retardation at various levels with the help of the regional health networks. Also, the need for more preventive expertise at the community-level shows that this kind of expertise is dedicated to educating the mentally disabled individuals and their families. Therefore, it is recommended that a program be developed to screen these patients in future studies.

CONCLUSION

The registration and identification of people with a history of mental disorders or various

degrees of mental retardation in health centers in each region to periodically assess their breast health can reduce the risk of the late detection of breast cancer in women. It is suggested that the legal aspects of supporting these patients be addressed in future studies.

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REFERENCES

- Ahmed, A., Zahid, I., Ladiwala, Z.F.R., Sheikh, R. & Memon, A.S. 2018. Breast Self-examination Awareness and Practices in Young Women in Developing Countries: A Survey of Female Students in Karachi, Pakistan. *Journal of Education and Health Promotion*, 7: 90. https://doi.org/10.4103/jehp.jehp_147_17
- Ali, A. & Katz, D.L. 2015. Disease Prevention and Health Promotion: How Integrative Medicine Fits. *American Journal of Preventive Medicine*, 49 (5S3): S230-S240. [https://www.ajpmonline.org/article/S0749-3797\(15\)00408-0/pdf](https://www.ajpmonline.org/article/S0749-3797(15)00408-0/pdf)
- Al-Rifai, R.H. & Loney, T. 2017. Factors Associated with a Lack of Knowledge of Performing Breast Self-Examination and Unawareness of Cervical Cancer Screening Services: Evidence from the 2015 Egypt Health Issues Survey. *Asian Pacific Journal of Cancer Prevention*, 18 (10): 2763-2769. <https://doi.org/10.22034/apjcp.2017.18.10.2763>
- Bauer, A., Taggart, L., Rasmussen, J., Hatton, C., Owen, L. & Knapp, M. 2019. Access to Health Care for Older People with Intellectual Disability: a Modelling Study to Explore the Cost-effectiveness of Health Checks. *BMC Public Health*, 19 (1): 706. <https://doi.org/10.1186/s12889-019-6912-0>
- Biabani, N., Kheirjoo, E. & Alaie, P. 2019. Comparison of Quality of Life, Intolerance of Uncertainty, and Parental Stress among Mothers with Mentally Retarded Children and Peers. *Salamat Ijtima'i (Community Health)*, 6 (2): 165-173. <http://doi.org/10.22037/ch.v6i2.23949>
- Chomistek, A.K., Chiuvé, S.E., Eliassen, A.H., Mukamal, K.J., Willett, W.C. & Rimm, E.B. 2015. Healthy Lifestyle in the Primordial Prevention of Cardiovascular Disease among Young Women. *Journal of the American College of Cardiology*, 65 (1): 43-51. <https://doi.org/10.1016/j.jacc.2014.10.024>
- Dekker, A.D., Coppus, A.M., Vermeiren, Y., Aerts, T., van Duijn, C.M., Kremer, B.P. & De Deyn, P.P. 2015. Serum MHPG Strongly Predicts Conversion to Alzheimer's Disease in Behaviorally Characterized Subjects with Down Syndrome. *Journal of Alzheimer's Disease*, 43 (3): 871-891. <https://doi.org/10.3233/JAD-140783>
- Dalton-Locke et al. 2020. The Effectiveness of Mental Health Rehabilitation Services: a Systematic Review and Narrative Synthesis. *Frontiers in Psychiatry*, 11 (607933). <https://dx.doi.org/10.3389/fpsyt.2020.607933>
- Emily et al. 2021. Cardiovascular Risk Factors are Associated with Future Cancer. *Journal of the American College of Cardiology*, 3 (1): 48-58. <https://www.jacc.org/doi/pdf/10.1016/j.jacc.2020.12.003>
- Gutiérrez, A.M., Sotillo, J., Schlosser, S., Hummel, K. & Miller, I. 2019. Towards Understanding Non-infectious Growth-rate Retardation in Growing Pigs. *Proteomes*, 7 (3): 31. <https://doi.org/10.3390/proteomes7030031>
- Hazarika, M., Das, S. & Choudhury, S. 2017. Parents' Attitude Towards Children and Adolescents with Intellectual Developmental Disorder. *International Journal of Child Development and Mental Health*, 5 (1): 11-21. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6530459/pdf/nihms-1026725.pdf>
- Hernández-Saca, D.I., Gutmann Kahn, L. & Cannon, M.A. 2018. Intersectionality Dis/ability Research: How Dis/ability Research in Education Engages Intersectionality to Uncover the Multidimensional Construction of Dis/abled Experiences. *Review of Research in Education*, 42 (1): 286-311. <https://doi.org/10.3102/0091732X18762439>
- Kalliguddi, S., Sharma, S. & Gore, C.A. 2019. Knowledge, Attitude, and Practice of Breast Self-examination amongst Female IT Professionals in Silicon Valley of India. *International Journal for Equity in Health*, 8 (2): 568. https://doi.org/10.4103/jfmpc.jfmpc_315_18
- Malvia, S., Bagadi, S.A., Dubey, U.S. & Saxena, S. 2017. Epidemiology of Breast Cancer in Indian Women. *Asia-Pacific Journal of Clinical Oncology*, 13 (4): 289-295. <https://doi.org/10.1111/ajco.12661>
- Martins, C., Godycki-Cwirko, M., Heleno, B. & Brodersen, J. 2018. Quaternary Prevention: Reviewing the Concept: Quaternary Prevention Aims to Protect Patients from Medical Harm. *European Journal of General Practice*, 24 (1): 106-111. <https://doi.org/10.1080/13814788.2017.1422177>
- Mazon, C., Fage, C., Consel, C., Amestoy, A., Hesling, I., Bouvard, M., et al. 2019. Cognitive Mediators of School-Related Socio-Adaptive Behaviors in ASD and Intellectual Disability Pre-and Adolescents: A Pilot-Study in French Special Education Classrooms. *Brain Sciences*, 9 (12): 334. <https://doi.org/10.3390/brainsci9120334>
- McDaid, D., Park, A.-L., Knapp, M., Wilson, E., Rosen, B. & Beecham, J. 2017. Commissioning Cost-effective Services for Promotion of Mental Health and Wellbeing and Prevention

- of Mental Ill-health. <http://eprints.lse.ac.uk/id/eprint/85944>
- Monfared, A., Ghanbari, A., Jansar Hosseini, L. & Norozi, N. 2017. Status of Screening by Mammography and its Related Factors in the General Population of Women in Rasht. *Iran Journal of Nursing*, 30 (107): 32-41. <http://ijn.iuums.ac.ir/article-1-2487-en.html>
- Nambi, V. & Bhatt, D.L. 2017. Primary Prevention of Atherosclerosis: Time to Take a Selfie?. *Journal of the American College of Cardiology*, 70 (24): 2992-2994. <https://doi.org/10.1016/j.jacc.2017.10.068>
- Soroush, A., Farshchian, N., Komasi, S., Izadi, N., Amirifard, N. & Shahmohammadi, A. 2016. The Role of Oral Contraceptive Pills on Increased Risk of Breast Cancer in Iranian Populations: a Meta-analysis. *Journal of Cancer Prevention*, 21 (4): 294-301. <https://doi.org/10.15430/JCP.2016.21.4.294>
- Spiridigliozzi, G.A., Keeling, L.A., Stefanescu, M., Li, C., Austin, S. & Kishnani, P.S. 2017. Cognitive and Academic Outcomes in Long-term Survivors of Infantile-onset Pompe Disease: A Longitudinal Follow-up. *Molecular Genetics and Metabolism*, 121 (2): 127-137. <https://doi.org/10.1016/j.ymgme.2017.04.014>
- Takkar, N., Kochhar, S., Garg, P., Pandey, A., Dalal, U.R. & Handa, U. 2017. Screening Methods (Clinical Breast Examination and Mammography) to Detect Breast Cancer in Women Aged 40–49 Years. *Journal of Mid-life Health*, 8 (1): 2-10. https://doi.org/10.4103/jmh.JMH_26_16